

ABSTRACT OF DISCLOSURE

An image forming apparatus has developing rollers mounted to be spaced-apart from a photo-sensitive body and supplying a developing agent to the photo-sensitive body, a bias-applying part applying a predetermined bias to the developing rollers through respective current-conducting paths to the photo-sensitive body from the developing rollers, a current detection part detecting a current flowing through the developing rollers in accordance with a bias applied from the bias-applying part, and an engine control part applying a first test AC voltage having a set first frequency to the developing rollers, controlling the bias-applying part to apply a second test AC voltage having a set second frequency to the developing rollers, calculating a resistance of the developing rollers and a gap between the developing rollers and the photo-sensitive body using a current value detected from the current detection part respectively corresponding to the first and second frequencies, and setting a bias voltage of a driving condition corresponding to the resistance of the developing rollers and the gap which are calculated as a developing bias voltage in a printing mode.